

Mineral Industry Surveys

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MOLYBDENUM IN SEPTEMBER 1999

Domestic production of molybdenum in concentrate in September 1999 was about 11% less than that of the previous month and was 37% less than that of September 1998, according to the U.S. Geological Survey. Producer stocks of molybdenum in concentrate, oxide, and other product forms were 14,000 metric tons at the beginning of 1999 and 13,700 metric tons at the end of September 1999.

Included in this Mineral Industry Surveys are U.S. production, shipments, and stocks of molybdenum concentrates and materials, plus U.S. consumption, by end use, of molybdenum in the previous and current months; also included are trade data for the previous month. During the current month, Platt's Metals Week U.S.

monthly average price for molybdenum concentrate was \$3.748 per kilogram (\$1.700 per pound). The average price for dealer molybdenum oxide was \$6.049 per kilogram (\$2.744 per pound), and that for dealer ferromolybdenum was \$8.157 per kilogram (\$3.700 per pound).

For the week ending November 12, 1999, Metals Week U.S. average price for molybdenum concentrate was \$3.748 per kilogram (\$1.700 per pound). The average price for dealer molybdenum oxide was \$5.754 per kilogram (\$2.614 per pound), and that for ferromolybdenum was \$8.047 per kilogram (\$3.650 per pound).

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS 1/

(Metric tons, contained molybdenum)

	1998	1999		Year to date
	January-December	August	September	
Production	53,300	3,000	2,670	34,400
Shipments:2/				
Domestic	34,300	1,490 r/	1,580	25,600
Export	17,800	669 r/	1,310	8,850

r/ Revised.

1/ Data are rounded to three significant digits.

2/ Includes molybdc oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 2
U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM PRODUCTS 1/

(Metric tons, contained molybdenum)

	1998	1999		Year to date
	January-December	August r/	September	
Gross production	57,200	3,110	2,830	30,800
Internal consumption 2/	23,400	1,840	1,660	15,600
Gross shipments	38,000	3,220	3,090	28,600

r/ Revised.

1/ Data are rounded to three significant digits.

2/ Includes molybdc oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 3
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/

(Kilograms, contained molybdenum)

End use	Molybdc oxides	Ferro molybdenum 2/	Ammonium and sodium molybdate	Molybdenum scrap	Other	Total
1999, August:						
Steel:						
Carbon	24,400	29,100	--	--	3,190	56,700
High-strength low-alloy	35,200	7,910	--	--	--	43,100
Stainless and heat-resisting	221,000	38,100	--	--	4,760	264,000
Full alloy	140,000	177,000	--	--	2,330	319,000
Tool	73,800	8,080	--	--	1,450	83,400
Total	495,000	260,000	--	--	11,700	766,000
Cast irons (gray, malleable, and ductile iron)	W	45,300	--	--	763	46,100
Superalloys	W	W	--	(3/)	99,600	99,600
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	--	2,370	--	--	6,290	8,660
Mill products made from metal powder 4/	--	--	--	--	171,000	171,000
Cemented carbides and related products 5/		--	--	--	2	2
Chemical and ceramic uses:						
Pigments	--	--	2,160	--	--	2,160
Catalysts	77,300	--	W	--	W	77,300
Other	W	--	--	--	--	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,700	10,700
Other	145,000	6,680	74,200	--	17,100	243,000
Grand total	717,000	314,000	76,300	--	317,000	1,420,000
Stocks, August 31, 1999	565,000	336,000	3,450	14,500	826,000	1,740,000

See footnotes at end of table.

TABLE 3--Continued
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molyb- denum 2/	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
1999, September						
Steel:						
Carbon	37,200	28,400	--	--	3,190	68,700
High-strength low-alloy	25,400	7,680	--	--	--	33,000
Stainless and heat-resisting	279,000	39,900	--	--	4,760	323,000
Full alloy	159,000	167,000	--	--	2,330	329,000
Tool	W	8,040	--	--	1,450	9,500
Total	500,000	251,000	--	--	11,700	763,000
Cast irons (gray, malleable, and ductile iron)	W	67,800	--	--	763	68,500
Superalloys	W	W	--	(3/)	99,500	99,500
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	225	650	--	--	6,290	7,160
Mill products made from metal powder 4/	--	--	--	--	178,000	178,000
Cemented carbides and related products 5/	--	--	--	--	9	9
Chemical and ceramic uses:						
Pigments	--	--	1,750	--	--	1,750
Catalysts	77,300	--	W	--	W	77,300
Other	W	--	--	--	--	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	14,800	14,800
Other	229,000	4,230	74,200	--	15,700	323,000
Grand total	806,000	324,000	75,900	--	327,000	1,530,000
Stocks, September 30, 1999	561,000	333,000	4,130	14,200	826,000	1,740,000

W Withheld to avoid disclosing company proprietary data; included in "Other" of the "Miscellaneous and unspecified uses" category.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes calcium molybdate.

3/ Included in "Other" of the "Superalloys" category.

4/ Includes ingot, wire, rod, and sheet.

5/ Includes construction, mining, oil and gas, metal working machinery.

TABLE 4
U. S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(Including roasted concentrate), BY COUNTRY 1/

(Kilograms, contained molybdenum)

Country	1998	1999		
		July	August	Year to date
Australia	81,700	--	1,770	25,100
Belgium	4,470,000	249,000	120,000	3,340,000
Brazil	59,400	2,950	15,300	24,700
Canada	994,000	57,800	103,000	741,000
Chile	6,840,000	76,600	66,200	1,830,000
China	424,000	93,800	194,000	506,000
Germany	460,000	--	37,600	96,400
Italy	448,000	36,700	23,100	187,000
Japan	4,410,000	61,300	275,000	1,510,000
Korea, Republic of	8,660	30,100	1,280	67,900
Mexico	4,220,000	--	1,650	127,000
Netherlands	12,800,000	572,000	390,000	4,720,000
Spain	119,000	--	--	1,130
Sweden	894,000	47,800	58,400	411,000
United Kingdom	5,480,000	292,000	1,090,000	3,480,000
Other	247,000	36,100	19,800	143,000
Total	42,000,000	1,560,000	2,400,000	17,200,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 5
U. S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY 1/

(Kilograms, contained molybdenum)

Country	1998	1999		
		July	August	Year to date
Australia	1,800	--	436	818
Canada	549,000	40,800	74,400	352,000
China	133,000	28,900	59,600	205,000
Japan	31,200	4,970	5,150	43,300
Korea, Republic of	1,610	--	9,110	9,440
Mexico	91,000	11,200	17,900	54,200
Other	852	--	--	599
Total	809,000	85,800	167,000	665,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS 1/

(Kilograms unless otherwise specified)

Material	1998			1999		
	January-December			August		
	Gross weight	Contained molybdenum	Value (c.i.f.) (thousands)	Gross weight	Contained molybdenum	Value (c.i.f.) (thousands)
Ore and concentrates roasted	8,020,000	5,090,000	\$39,700	528,000	340,000	\$2,080
Ore and concentrates other	2,710,000	1,480,000	7,810	--	--	--
Molybdenum chemicals:						
Oxides and hydroxides	1,180,000	NA	9,610	108,000	NA	766
Molybdates of ammonium	1,240,000	684,000	8,980	86,900	50,800	458
Molybdates (all others)	192,000	113,000	982	18,000	7,110	72
Molybdenum orange	2,050,000	NA	7,950	107,000	NA	563
Mixtures of inorganic compounds	--	--	--	--	--	--
Ferromolybdenum	7,690,000	4,830,000	44,000	553,000	342,000	2,480
Molybdenum powders	110,000	103,000	3,210	10,100	8,780	308
Molybdenum unwrought	145,000	137,000	2,110	--	--	--
Molybdenum waste and scrap	296,000	292,000	4,080	64,700	64,400	869
Molybdenum wire	5,530	NA	500	324	--	27
Molybdenum other	7,850	NA	1,650	1,170	--	146
Total	23,700,000	12,700,000	131,000	1,480,000	813,000	7,780

NA Not available.

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.